

9581 SST



GUARDIAN II Return Path Analyzer

- **High-Speed Ingress Monitor**
- **Powerful Reverse Path Troubleshooter**
- **Supports Installation and Network Maintenance Field Units**
- **Scalable, Cost-effective in every Configuration**



The 9581 SST is the hub of the Guardian II Return Path Maintenance System, supporting field technicians using Trilithic RSVP2, 9580 SSR and 860 DSP field units and network-connected engineers using Trilithic Viewer II, IngressManagR and DIA software.

Cutting edge DSP technology gives the SST the speed to perform all of these tasks at once: a single SST can support up to 12 distribution technicians and a virtually unlimited number of installers while providing live spectra and recent historical data to as many as 6 independent NOC operators.

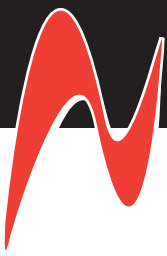
DSP gives the SST unmatched power for capturing transient ingress bursts, scanning each test point up to 80 times / second, each scan capturing the entire ingress spectrum in less than 60 microseconds. Thanks to the SST's speed, the NOC operator or field technician will never miss an ingress outbreak capable of disrupting return services.

A wide selection of resolution bandwidths and detector modes make the 9581 SST a highly versatile troubleshooting aid. Resolutions from 30 kHz to 3 MHz accommodate all types of return analysis, and continuously-running Max and Min functions help identify long-term performance issues. A special data processing mode, *TraffiControl*, allows the operator to analyze the ingress hidden inside occupied frequency bands by automatically removing all legitimate TDMA signals, leaving a spectrum composed solely of noise and ingress.

Thanks to the efficiency of modern DSP technology, the 9581 SST offers high performance at a lower price than any analog, hardware-intensive alternative. DSP gives the 9581 SST superior analytical capabilities, greater speed and superior versatility at half the price-per-node of return path maintenance systems relying on analog techniques.



TRILITHIC



9581 SST

Specifications

General Connections:

- Standard:** Two test ports.
- Optional:** Add one TPM-8 module: 9 test ports
Add two TPM-8 modules: 16 test points
Each test point is analyzed individually

Functions Simultaneously Supported:

- Reverse Sweep, working with 9580 SSR Field Units or 860 DSP Signal Analyzer with Option SR-1.
- Reverse Installation Testing, working with RSVP2 Installer's Reverse Tester or 860 DSP Signal Analyzer with Option VP-1
- Reverse Path Ingress Monitoring with SNMP alarming, working with Viewer II Software.
- Real Time Alarm Generation and Spectrum Analysis, working with Viewer II live-view software

Measurement Refresh Speed:

- Field Equipment: Every 0.8 seconds
- Monitoring and Alarming: Every 0.4 seconds
- Live-viewing Functions: Every 0.4 seconds

Spectrum Data Resolution (RBW)

- Network Applications:** 30 kHz, 100 kHz, 300 kHz, 1 MHz, 3 MHz
Transient Troubleshooter Mode: 375 kHz at high scan rate
- Field Applications:** 375 kHz
- Display Range:** 50 dB dynamic range, 1 dB measurement resolution.
- Level Accuracy:** +/- 1 dB

Spectrum Processing Modes

(Available Simultaneously):

- Peak Mode:** Single spectrum comprised of the peak values of 16 - 32 spectrum scans collected during previous 0.4 seconds
- AVG Mode:** Single spectrum averaging the 16 - 32 spectrum scans collected during previous 0.4 seconds
- TrafficControl Mode:** Processes return spectra to remove all TDMA traffic to enhance ingress detection. Updates every 0.4 seconds.

Spectrum Scan Rate:

- ENM Mode:** Supports both Network and Field Applications: Scans all test points 40 scans / second
- SFM Mode:** Supports only Transient monitoring and Analysis functions: Scans all test points 80 scans / second

Field Unit Support

Field Functions Supported:

Spectrum view, 0.3 - 65 MHz. Current node is automatically selected or user may select other nodes supported by same SST.

Sweep, 0.3 - 65 MHz. Up to 12 field units independently supported per SST.

Ranging test for installation verification. Typically Supports 50 or more RSVP2 Reverse Installer's Tester or 860 DSP Option VP-1s per SST

Field Communications:

Data Carrier: One telemetry carrier for each 8 test points.

Data Carrier Frequency Set Ranges: 50.00-53.75 MHz and 70.00-75.75 MHz; or 80-92 MHz.
Setting range is specified at time of order.

Data Carrier Frequency Resolution: Center frequency user-settable in 50 kHz steps.

Data Carrier Occupied Bandwidth: 150 kHz at -20 dBc
475 kHz at -60 dBc

Network Support

Communications (Requires optional communications Interface): Ethernet LAN connection (10 mbits/s). 9581 SST functions as mini-server supporting up to 6 simultaneous users, each with own user name.

Data Available per Test Point:

- Live spectrum scans, All detector Modes.
- Last ingress-affected spectrum.
- Last test results vs four amplitude limit sets, user-settable persistence threshold.
- Running, long-term MAX and Min spectra (restartable by user).
- Peak, Min and Avg spectrum data compressions for last 30 minutes.

Mechanical, Miscellaneous

- SST Display Panel:** Auxiliary display for local viewing: Backlit LCD, 1.5" x 2.75"
- Controls:** Tactile key pad
- Size:** 3.5" x 17" x 12.3"
- Weight:** 7 lbs.
- Power:** 95 - 230 VA, 50 - 60 Hz.

